Procedure No. 004

Procedure Subject: Re-Roofing Existing Residential Structures

Effective Date: 9/20/2011 Revised: 9/20/2023

All reroofs shall comply with the current California Building Code (CBC) and California Residential Code (CRC), adopted, and amended by City Ordinance No. 2022-1094 and 2022-1095, Municipal Code sections 15.04.060 and 15.05.050.

- 1. Complete the "Building Permit Submittal Form" with all pertinent information to the re-roof scope of work. Information specific to the re-roof project must include:
 - a. The number of squares, type of underlayment (felt or synthetic), number of layers, and weight of underlayment, roof skylight locations (include ICC or UL listing number).
 - b. The manufacturer of the composition shingles and the applicable Evaluation Service Record (ESR) number and Cool Roof Rating Council (CRRC) number.
 - c. If a tile roof is being used, include the weight of the existing and new tile, manufacturer of the tile, and the applicable ESR and CRRC numbers.
- 2. **Repairs and Additions**. Repairs and additions of any existing roof area shall be with a **Class A** roof assembly. (CBC B1505.1 and CRC R902.1)
 - A minor repair of a reroof, 99 ft² or less, does not require a Building Permit per the Building Official.
- 3. Only one layer of roof covering may be installed on any roof surface. All existing roofing material shall be removed to expose the entire roof deck and if necessary, any associated roof framing. (CBC B1512.2 and CRC R908.3)
 - Prior to the installation of any roof material, a <u>City of Yorba Linda Building Inspector shall inspect</u>
 <u>the existing roof deck</u> and if applicable, associated roof framing material for water damage, termite
 damage, and overall structural soundness. A building permit is required for the replacement of any
 damaged roof deck material or roof framing material, if necessary.
 - High Fire Areas/Fuel Modification Zones/OCFA Development Areas: Where the roof profile allows a space between the roof covering and the roof decking, the spaces shall be constructed to resist the intrusion of embers. A 72-pound mineral-surfaced non-perforated cap sheet complying with ASTM D3909 must be installed over the entire layer(s) of underlayment. An alternate underlayment may be allowed if it meets the requirements of CBC Chapter 7A and CRC R337.5.2. The cap sheet requires a separate inspection prior to the roof covering installation. (CBC Chapter 7A and CRC R337)

See link below to verify whether a property is in High Fire Areas/Fuel Modification Zones/ OCFA Development Areas:

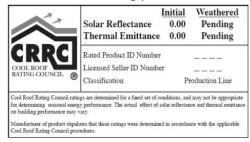
https://webgis.yorbalindaca.gov/portal/apps/webappviewer/index.html?id=e4bda1029e5145e09a9713fef1ec4ccf

• High Fire Re-Roof Venting Requirements: When 50 percent or more of roof covering is removed, within a one-year period, all roof vents, underside eave vents, or cornice vents shall be replaced per Section R337.6 of the 2022 California Residential Code. Retrofit vents shall be reviewed and approved in a case-by-case review prior to installation. (CBC Chapter 7A and CRC R337)

4. California Energy Code. Per the California Energy Code, a Cool Rated Roof assembly shall be installed with an approved CRRC reference number when 50 percent or more of the roof surface is being replaced. (California Energy Code Section 150.2(b)11).

Note: City of Yorba Linda is in Climate Zone 8 per the California Energy Commission.

This label is required for all Cool Roof roofing products:



 Cool Roof product information is available at this link below: http://www.coolroofs.org/products/results

a. For Steep-Sloped Roofs (2:12 slope or greater) [Section §150.2(b)1li]:

Cool Roof roofing product shall have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75, or a minimum SRI of 16.

<u>Exception</u>: Roof area covered by building integrated photovoltaic panels or building integrated solar thermal panels is not required to meet minimum requirements for aged solar reflectance, thermal emittance, or SRI.

Options for other than a "Cool-Roof": If a cool rated roof assembly <u>is not being used</u>, then a sufficient means of insulation shall be installed to meet the requirements of the California Energy Code Section §150.2(b)1li, see below:

- i. Minimum R-38 ceiling insulation; or
- ii. R-2.0, or greater continuous insulation above or below the roof deck; or
- iii. Radiant barrier installed in the attic and not directly above spaced sheathing.

<u>Note</u>: Radiant barrier must be installed in compliance with the manufacturer's installation instructions. When installed as roof sheathing it is not allowable to install radiant barrier directly over skipped sheathing or existing sheathing that may be added over existing space sheathing. The skipped sheathing must be removed or a 1x4 shall be installed over each truss/rafter to provide a ¾" air space between the radiant barrier and the skipped sheathing. The radiant barrier shall be installed at all gable end walls and other vertical surfaces in the attic with exposure to the exterior.

b. For Low-Sloped Roofs (less than 2:12 slope) [Section §150.2(b)1lii]:

Low-sloped roofs shall be insulated with continuous insulation of R14 or greater, <u>and</u> a cool rated roof product with a minimum aged solar reflectance of 0.63 and minimum thermal emittance of 0.75, or a minimum SRI of 75.

For other exceptions see California Energy Code Section §150.2(b)1lii.

5. Re-roofing design and installation standards:

- a. Removal of existing wood shingle/shake roofing material may use 3 to 4 lbs. per sf. reduction to the dead load in the following guidelines when calculating the resulting **Net Added Weight** to the roof.
- b. **Net Added Weight** is defined as the total added dead load weight over and above the total dead load weight of the originally installed roofing system. The total added dead load weight includes any new added insulation, roof sheathing, new roof covering, or other materials not included in the original roof system.
- c. The following guidelines are to be used based on the **Net Added Weight** to the roof for submittal and permitting requirements:
 - i. **0 to 2 lbs. per sf.**, submittal documents for plan check are typically not required for building permit issuance.
 - ii. **Over 2 and up to 4 lbs. per sf.**, the existing framing needs to be plan checked. Therefore, a framing plan with framing sections illustrating compliance with Section 2308 of the California Building Code (CBC) can be submitted. When the plan does not comply with Section 2308 CBC, a Registered Engineer must analyze the existing framing. Calculations with a framing plan must be stamped, signed, submitted, plan checked, and approved prior to building permit issuance.
 - iii. **Over 4 lbs. per sf.**, the existing framing and lateral loading needs to be analyzed by a Registered Engineer. Calculations with a framing plan must be stamped, signed, submitted, plan checked, and approved prior to building permit issuance.

Please read PRIOR to starting Job:

- All roofing materials shall be on-site at the time of inspection. This includes venting, cap sheet, verification of material weight, verification of new vents, and Class A material rating.
- Enforcement of proper roofing installations shall be the sole responsibility of the owner, roofing contractor, or the general contractor. Building Department Inspectors can only spot check certain areas of the roof for proper installation.
- The person responsible for obtaining the building permit, Owner, or Contractor, must provide proper access for the City Inspector to conduct a roof framing inspection and must leave adequate roof openings and access at the areas to be inspected. <u>This must be</u> available and ready prior to inspections.
- All single-family homes must have a smoke and carbon monoxide detector inspection by the time of the final inspection. Self-certification form is available for property owner to selfcertify and complete prior to final inspection, see link below: https://www.yorbalindaca.gov/DocumentCenter/View/5795/Self-Certification-Smoke-and-Carbon-Alarms-Form-PDF

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